

Amendments to the Claims:

~ This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) Automatic precision drawing-off device ~~with rinsing of the pipette, this device comprising at least two first and second pumping units of different slides with imperviousness, said unit delimiting with said cavity a having a respective first and second working chamber chambers whose volume varies volumes vary according to the axial position of the two respective rod/piston units which slide in said working chambers, said the extremities of the two rod/piston units which come out of the two cavities being coupled to an activation-actuation member driven in rotation by a common motorisation motor, the said working chamberschamber of each of the pumping units-being connected to a circuit successively comprising a pipe opening into a rinsing liquid reserve, two first and second successive electrovalves and a circuit portion connecting the said second electrovalve to drawing-off means, the largest said first working chamber being connected to said circuit in a region forming a link between said first electrovalve and said second electrovalve, into the circuit portion providing the link between the two electrovalves whereas the said second working chamber is being connected to said circuit portion by means of a connector, wherein this said circuit portion comprises an a third electrovalve situated directly connected between said connector and said drawing-off means, said electrovalves and said motorisation motor being controlled by~~

control means designed so as configured to obtain at least a drawing-off cycle from an initial status where the drawing-off means is engaged in a receptacle, said first and second electrovalves are open and the third electrovalve is closed, the motorisation is stopped, and the rod/piston units are in an idle position, wherein said control means comprises means for controlling said drawing cycle comprising to include: comprising at least one suction sequence in which the motor rotates continuously in a negative direction so as to provoke a sucking up of the rinsing liquid in the two chambers, this sequence comprising at least the following successive phases:

[-]] a first transitory phase step in which the first valve is in an open position, rod/piston units are driven by said motor in a first direction to create a sucking of said rinsing liquid into the two working chambers while elements of said motor are in abutment against one another.

[-]] a phase for taking a sample in which the second valve is closed and the third valve is open;

[-]] an end-of sample taking phase comprising the closing of the third valve a drawing-off phase obtained by closing said second electrovalve and by opening the third electrovalve, the two rod/piston units being moved in said first direction so that said first pumping unit sucks up the rinsing liquid contained in said reserve and the second pumping unit creates suction of the product contained in said receptacle into said drawing-off means, and

a second transitory phase marked by the closure of said third electrovalve and the opening of the second electrovalve so that said drawing-off phase is ended whereas

~~the motor continues to drive said rod/piston units in said first direction thus provoking a suction by the two chambers of the rinsing liquid derived from said reserve, the motor being stopped at the end of this second transitory phase.~~

2.(Cancelled).

3. (Currently amended) Device according to claim 2, wherein the ~~control means is configured to control said drawing-off cycle comprises to include a flowing back sequence in which the motor rotates in a positive direction the rod/piston units are driven by said motor in a second direction opposite to said first direction so as to provoke a flowing back of the rinsing liquid present in the two working chambers, this said control means configured to control said flowing back sequence comprising to include the~~ following successive phases:

~~[[-]] a transitory phase in which the third valve-electrovalve is closed whereas the first two said first and second electrovalves valves are open so as to allow a flowing back of the rinsing liquid contained in the chambers towards said rinsing liquid reserve-the receptacle,~~

~~[[-]] a flowing back phase in which the said third valve-electrovalve is open whereas the second electrovalve valve is closed, the first electrovalve valve remaining open so as to enable the product present in said drawing-off means to flow back into the an analysis receptacle,~~

~~[[-]] an end of flow back phase comprising the closing of the said third electrovalve valve and the opening of the second electrovalve valve the first electrovalve valve remaining open.~~

4. (Currently amended) Device according to claim 3, wherein said control means is configured to control said drawing-off cycle comprises to include a rinsing phase during which ~~the said first electrovalve valve is closed~~ whereas the second and third ~~electrovalves valves are open~~, the motor being activated step by step so as to push back the rinsing liquid contained in the two ~~syringes working chambers~~ in the direction of the drawing-off means.

5. (Currently amended) Device according to claim 4, wherein said control means is configured to control said drawing-off cycle comprises to include a return to ~~zero~~ phase comprising ~~the said initial status with~~ filling of the working chambers with the rinsing liquid, ~~the first two said first and second electrovalves valves being open~~ whereas ~~the said third electrovalve valve is closed~~, the motor rotating in a negative rod/piston units being driven by said motor in the first direction so as to bring back the pistons below the "zero" idle position, followed by a phase for evacuating air from the said drawing-off means by opening the said second and said third electrovalves valves and by closing the said first valve/electrovalve, said rod/piston units being driven by said motor in the second the motor rotating in a positive direction so as to provoke a flowing back of the rinsing liquid towards the said drawing-off means and to bring back the pistons ~~the said rod/piston units into an said~~

idle position, ~~the said~~ third electrovalve then being closed whereas ~~the said first and second~~ electrovalves are open.

6. (Currently amended) Device according to claim 1, wherein ~~control means is configured to control~~, during said drawing-off cycle, at the time of ~~the said first~~ transitory phase, the second and third ~~electrovalve valve are to open~~ and the ~~second first electrovalve valve is closed to close~~, and at the time of said end of ~~said second transitory phase sample taking phase~~, the ~~said third electrovalve valve is closed to close~~ and the movement of said ~~rod/piston units is to be reversed~~ motor starts an inversion of direction of rotation transitory phase.

7. (Currently amended) Device according to claim 6, wherein said ~~control means is configured to control said~~ drawing-off cycle ~~comprises to include~~ a flowing back sequence with ~~first~~ a flowing back of the rinsing liquid into the two working chambers, and secondly a flowing back of the ~~sample product~~ into the analysis receptacle, ~~said control means configured to control this sequence comprising to include~~ the following successive phases :

[I-]) a phase where the first and second ~~electrovalves valves~~ are open and the third ~~electrovalve valve~~ is closed to allow a flowing back of the rinsing liquid contained in the chambers towards ~~the a~~ receptacle,

[II-]) a transitory play adjustment phase in which the second ~~electrovalve~~ is closed, the first ~~electrovalve valve~~ remaining open and the third ~~electrovalve valve~~ closed,

[[-]] a phase in which the third ~~electrovalve valve~~ is open whereas the first ~~electrovalve valve~~ stays open and the second ~~electrovalve valve~~ is closed to enable the product to flow back into the analysis receptacle, and

[[-]] a phase for controlling the zero-idle position of the motor said rod/piston units.

8. (Currently amended) Device according to claim 7, wherein the ~~control means is configured to control~~ said drawing-off cycle ~~comprises to include~~ a rinsing sequence during which the liquid contained in the pipette said drawing-off means is pushed back into the a rinsing well, the second and third ~~electrovalve valves~~ being open whereas the said first ~~electrovalve valve~~ is closed, the motor said motor being activated step by step so as to obtain a flowing back in several stages.

9. (Currently amended) Device according to claim 8, wherein the ~~the control means is configured to control~~ said drawing-off cycle ~~comprises to include~~ a phase for return to an initial state status comprising:

[[-]] means to control the filling of the said working chambers with the rinsing liquid, the first and second ~~electrovalve valves~~ being open and the said third ~~electrovalve valve~~ closed, the motor rotating in a negative rod/piston units being driven in said first direction as far as a position slightly below the zero-idle level,

[[-]] means to provide a zero control phase during which the motor is driven in rotation rod/piston units are driven in a positive said second direction until the zero-idle position level is detected,

~~[[-]] means to provide a play adjustment phase in which the said first electrovalve valve is closed again and the motor is driven in rotation in a negative rod/piston units are driven in the first direction until it comes back to a position situated slightly below the zero idle level, and~~

~~[[-]] means to provide a final phase for return to an initial state in which the first and third electrovalves valves are open whereas the second electrovalve valve is closed, the motor being at a dead stop.~~

10. (Currently amended) Device according to claim 1, wherein the ~~cylindrical cavities working chambers~~ of the two pumping units are embodied in a given material block.

11. (Currently amended) Device according to claim 1, wherein the said ~~motorisation~~ motor comprises a motor driving a pinion which gears with a rack integral with said ~~activation~~ actuation member.

12. (Currently amended) Device according to claim 1, wherein the upper extremities of the ~~cylindrical cavities working chambers~~ and of the rod/piston assemblies are conical.

13. (Currently amended) Device according to claim 12, wherein the conical shape of the smallest cylindrical cavity communicates directly with the ~~pipe-circuit portion~~ connected to the drawing-off means.

14. (Currently amended) Device according to claim 1, wherein the said pumping units consist of modules each comprising a body having two parallel assembling faces into which a traversing pipe opens in communication with said ~~cylindrical cavity~~ working chambers and having one portion able to be sealed off by an electrovalve, the orifices of said pipe being equipped with connection means ~~making it possible to provide~~ for providing a sealed connection with a corresponding orifice of another module when the two modules are assembled to each other via their assembling faces and fixed in this position with the aid of fixing means, said orifices being able to be moreover connected, either to ~~the a~~ a rinsing liquid intake pipe or to ~~the a~~ a pipe connected to ~~the said~~ the drawing-off means.

15. (Currently amended) Device according to claim 14, wherein each of the modules comprises a ~~pipe duct~~ pipe duct in communication with ~~the cylindrical cavity~~ said working chamber and which opens outside via an orifice constituting a parallel outlet, said ~~pipe duct~~ pipe duct being ~~able configured~~ able configured to be sealed off by an electrovalve.

16. (Currently amended) Device according to claim 1 wherein said electrovalves and said motorisation are controlled by a processor receiving information relating to the position of the rod/piston ~~units assemblies~~ units assemblies.

17. (Currently amended) Device according to claim 16, ~~wherein said~~ information is obtained with the aid of which comprises an optical fork associated with said rack, ~~and connected to said processor so as to give said information.~~